Exploring Aeronautics			
2009 Mathematics			
Priority Academic Student Skills			
Oklahoma Mathematics			
Grade 5			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	OK	MA.5.4.1.a	Compare, estimate, and determine the measurement of angles.
Fundamentals of Aeronautics (145-176)	OK	MA.5.4.1.c	Convert basic measurements of volume, mass and distance within the same system for metric and customary units (e.g., inches to feet, hours to minutes, centimeters to meters).
Fundamentals of Aeronautics (145-176)	OK	MA.5.5.1.b	Formulate questions, design investigations, consider samples, and collect, organize, and analyze data using observation, measurement, surveys, or experiments (e.g., how far can 5th graders throw a softball based on where it first hits the ground?).
Airplane Control(209-256)	OK	MA.5.4.1.a	Compare, estimate, and determine the measurement of angles.
Science of Flight	OK	MA.5.5.1.b	Formulate questions, design investigations, consider samples, and collect, organize, and analyze data using observation, measurement, surveys, or experiments (e.g., how far can 5th graders throw a softball based on where it first hits the ground?).
Integrating with Aeronautics	OK	MA.5.1.1	Describe rules that produce patterns found in tables, graphs, and models, and use variables (e.g., boxes, letters, pawns, number cubes, or other symbols) to solve problems or to describe general rules in algebraic expression or equation form.
Integrating with Aeronautics	OK	MA.5.2.1.a	Apply the concept of place value of whole numbers through hundred millions (9 digits) and model, read, and write decimal numbers through the thousandths.
Integrating with Aeronautics	OK	MA.5.5.1.a	Compare and translate displays of data and justify the selection of the type of table of graph (e.g., charts, tables, bar graphs, pictographs, line graphs, circle graphs, Venn diagrams).
Integrating with Aeronautics	OK	MA.5.5.1.b	Formulate questions, design investigations, consider samples, and collect, organize, and analyze data using observation, measurement, surveys, or experiments (e.g., how far can 5th graders throw a softball based on where it first hits the ground?).
Intro to Aeronautics (109-123)	OK	MA.5.5.1.a	Compare and translate displays of data and justify the selection of the type of table of graph (e.g., charts, tables, bar graphs, pictographs, line graphs, circle graphs, Venn diagrams).

Scientific Method(124-144)	OK	MA.5.5.1.a	Compare and translate displays of data and justify the selection of the type of table of graph (e.g., charts, tables, bar graphs, pictographs, line graphs, circle graphs, Venn diagrams).
Exploring Aeronautics			
2009 Mathematics			
Priority Academic Student Skills			
Oklahoma Mathematics			
Grade 6			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	OK	MA.6.5.1	Organize, construct displays, and interpret data to solve problems (e.g., data from student experiments, tables, diagrams, charts, graphs).
The Resource Center	OK	MA.6.1.4	Write and solve one-step equations with one variable using number sense, the properties of operations, and the properties of equality (e.g., 1/3x = 9).
The Resource Center	OK	MA.6.2.1	Convert compare, and order decimals, fractions, and percents using a variety of methods.
Integrating with Aeronautics	OK	MA.6.1.1	Generalize and extend patterns and functions using tables, graphs, and number properties (e.g., number sequences, prime and composite numbers, recursive patters like the Fibonacci numbers).
Integrating with Aeronautics	OK	MA.6.1.2	Write algebraic expressions and simple equations that correspond to a given situation.
Integrating with Aeronautics	OK	MA.6.5.1	Organize, construct displays, and interpret data to solve problems (e.g., data from student experiments, tables, diagrams, charts, graphs).
Intro to Aeronautics (109-123)	OK	MA.6.5.1	Organize, construct displays, and interpret data to solve problems (e.g., data from student experiments, tables, diagrams, charts, graphs).
Scientific Method(124-144)	OK	MA.6.5.1	Organize, construct displays, and interpret data to solve problems (e.g., data from student experiments, tables, diagrams, charts, graphs).
Exploring Aeronautics			
2009 Mathematics			
Priority Academic Student Skills			
Oklahoma Mathematics			
Grade 7			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	OK	MA.7.5.1	Compare, translate, and interpret between displays of data (e.g., multiple sets of data on the same graph, data from subsets of the same population, combinations of diagrams, tables, charts, and graphs).

Integrating with Aeronautics	OK	MA.7.5.1	Compare, translate, and interpret between displays of data (e.g., multiple sets of data on the same graph, data from subsets of the same population, combinations of diagrams, tables, charts, and graphs).
Intro to Aeronautics (109-123)	OK	MA.7.5.1	Compare, translate, and interpret between displays of data (e.g., multiple sets of data on the same graph, data from subsets of the same population, combinations of diagrams, tables, charts, and graphs).
Scientific Method(124-144)	OK	MA.7.5.1	Compare, translate, and interpret between displays of data (e.g., multiple sets of data on the same graph, data from subsets of the same population, combinations of diagrams, tables, charts, and graphs).
Exploring Aeronautics			
2009 Mathematics			
Priority Academic Student Skills			
Oklahoma Mathematics			
Grade 8			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	OK	MA.8.3.2	Develop the Pythagorean Theorem and apply the formula to find the length of line segments, the shortest distance between two points on a graph, and the length of an unknown side of a right triangle.
Fundamentals of Aeronautics (145-176)	OK	MA.8.5.1	Select, analyze and apply data displays in appropriate formats to draw conclusions and solve problems.
Wings(177-208)	OK	MA.8.4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).
Science of Flight	OK	MA.8.5.1	Select, analyze and apply data displays in appropriate formats to draw conclusions and solve problems.
Science of Flight	OK	MA.8.5.2	Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population (e.g., is the average height of a men's college basketball team a good representative sample for height predictions?).
Integrating with Aeronautics	OK	MA.8.3.2	Develop the Pythagorean Theorem and apply the formula to find the length of line segments, the shortest distance between two points on a graph, and the length of an unknown side of a right triangle.